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Metabolic Rate

Metabolic rate refers to the rate at which your body burns calories to maintain basic physiological functions, such as breathing, circulating blood, and regulating body temperature. It is a measure of how much energy your body uses over a specific period.

Key Components

1. **Basal Metabolic Rate (BMR)**: The amount of energy expended while at rest in a neutrally temperate environment, in the post-absorptive state (meaning that the digestive system is

inactive, which requires about 12 hours of fasting in humans).

2. **Resting Metabolic Rate (RMR)**: Similar to BMR but measured under less stringent conditions. It includes the energy expended to maintain basic bodily functions while at rest.

3. **Total Daily Energy Expenditure (TDEE)**: The total amount of calories burned in a day, including BMR/RMR, physical activity, and the thermic effect of food (the energy required for digestion, absorption, and disposal of ingested nutrients).

Factors Influencing Metabolic Rate

- **Age**: Metabolic rate generally decreases with age.

- **Gender**: Men typically have a higher metabolic rate than women due to having more muscle mass.

- **Body Composition**: Muscle tissue burns more calories than fat tissue, so individuals with more muscle mass have a higher metabolic rate.

- **Genetics**: Genetic factors can influence metabolic rate.

- **Hormones**: Thyroid hormones, for example, play a significant role in regulating metabolic rate.

- **Physical Activity**: Regular exercise can increase metabolic rate by building muscle mass and enhancing overall energy expenditure.

Importance

Understanding your metabolic rate can help in managing weight, as it provides insight into how many calories your body needs to function and how many you should consume to maintain, lose, or gain weight.